



1000705

NOV 23 1987

5HS-JCK-13

Dale Bennington, P.E.  
 Manager, Energy & Envr. Engineering  
 Keystone Steel & Wire Company  
 7000 S.W. Adams Street  
 Peoria, IL 61641

RE: Sampling Inspection  
 Keystone Steel & Wire Co.  
 ILD 000 714 881

Dear Mr. Bennington:

This is to inform you that the United States Environmental Protection Agency (U.S. EPA) will collect samples at your facility on December 8th and 9th. The second date is scheduled in case the sampling cannot be completed on the first day.

Section 3007(a)(2) of the Resource Conservation and Recovery Act (RCRA) authorizes U.S. EPA, or its representatives, to collect samples at any site that generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous waste. We will carry out the sampling under this authority. A detailed sampling plan will be provided to you at the time of sampling.

Should you need further information on the above subject, please contact Kevin Moss of my staff, at (312) 886-0991.

Sincerely,

ORIGINAL SIGNED BY/  
 KARL E. BREMER

Karl E. Bremer, Chief  
 Technical Programs Section

cc: Larry Eastep IEPA  
 John Tripses IEPA

5HS:K.MOSS:fm:11/18/87

Illinois Unit Disc #1

*FACILITY FILE COPY*

*em 11/23/87*

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INIT. DATE	GM	KFM	Any					KES		
	11-19-87	11/23/87	11/23/87					11/23/87		



C-521-m-9

cc: Peoria  
USEPA

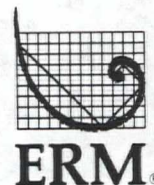
ERM-North Central, Inc.

1630 Heritage Landing Drive  
Suite 100  
St Charles, MO 63303  
(314) 928-0300  
(314) 928-2050 (fax)

July 7, 1995

**CERTIFIED MAIL NO. P 008 954 984  
RETURN RECEIPT REQUESTED**

Mr. Ed Bakowski, P.E.  
Manager - Permits Section  
Illinois Environmental Protection Agency  
Division of Land Pollution Control, #33  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794



RE: People of the State of Illinois vs.  
Keystone Consolidated Industries, Inc.  
Case No. 93 CH 000103

Dear Mr. Bakowski:

The purpose of this letter is to notify the Agency that **Keystone Steel & Wire Company (Keystone)** anticipates that preliminary performance trial samples will be collected starting on July 17, 1995. These samples will be used to determine the appropriate additive blend and mixing techniques required to achieve acceptable treatment. Keystone anticipates these activities to proceed for approximately two weeks at which time full scale treatment will begin. This notification is being provided in accordance with Section VIII.38. of the July 2, 1993 Consent Order between Keystone and the Attorney General of the State of Illinois.

Please call me at 314/928-0300 if you have any questions concerning the contents of this letter or if you need additional information.

Sincerely,

Elton D. Breland, P.E.  
Senior Project Manager

JEG/DBG

RECEIVED

JUL 10 1995

PERMIT SECTION



**JACOBS ENGINEERING GROUP INC.**  
**ENVIRONMENTAL SYSTEMS DIVISION**

222 S. RIVERSIDE PLAZA-SUITE 1870 CHICAGO ILLINOIS 60606

February 16, 1988

Ms. Pat Vogtman  
TES IV Primary Contact  
U.S. Environmental Protection Agency  
Region V  
230 South Dearborn Street  
Chicago, IL 60604

Re: Contract No. 68-01-7351  
Project No. 05-B201-00  
Work Assignment No. 201  
Illinois RFAs  
RCRA, Region V

Dear Ms. Vogtman:

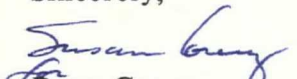
Please find submitted herewith two copies each of the following RCRA Facility Sampling Reports, prepared under Work Assignment No. 201.

✓ Keystone Wire and Steel - Peoria, Illinois  
Sherwin-Williams/PMC, Inc. - Chicago, Illinois

These reports had been completed, and were on hold pending receipt of the QA reviewed analytical data from the Central Regional Laboratory for inclusion in a comprehensive final sampling report for each site. We have recently received revised guidelines from EPA Region V, on reporting requirements for this work assignment (M. Logan, December 1987), which specifies that in addition to a Sampling Visit Report, a Data Evaluation Report should also be submitted. Therefore, the enclosed reports are being submitted at this time, in order to meet the sampling visit report requirement for the subject RFAs. They are being submitted in the old format, because they had been completed prior to receipt of the new guidelines. Data Evaluation Reports for each facility will be prepared after we have received the QA reviewed data from the EPA.

If you have any questions or require additional information, please feel free to contact me at (312) 648-0002.

Sincerely,

  
Dean Geers  
Manager, Region V

DG/jai

Encl.

cc: F. Norling

RFA SAMPLING VISIT - KEYSTONE STEEL AND WIRE, PEORIA, ILLINOIS  
ILD000714881  
DECEMBER 8, 9, 1987

U. S. EPA: KEVIN J. MOSS  
METCALF AND EDDY: KEN KRUEGER, CAROL MEYER, GARY SCHAFER  
KEYSTONE: DALE BENNINGTON, DAVE SEMELROTH

On the morning of Dec. 8th, I met with Keystone representatives, Dale Bennington and Dave Semelroth, prior to the arrival of Metcalf and Eddy, to discussed the sampling plan and sampling locations. The meeting lasted from approximately 10:15 - 11:00a.m. (Dave Semelroth was present in case D. Bennington could not accompany us over the course of the sampling visit. As it turned out D. Bennington was with us the entire two days). Keystone had no objections to the sampling plan and we were able to start immediately after lunch. Metcalf and Eddy arrived at approximately 11:15.

DAY 1

Tuesday, Dec. 8th. Overcast with short intermediate sprinkles. Temperatures in the upper 30's.

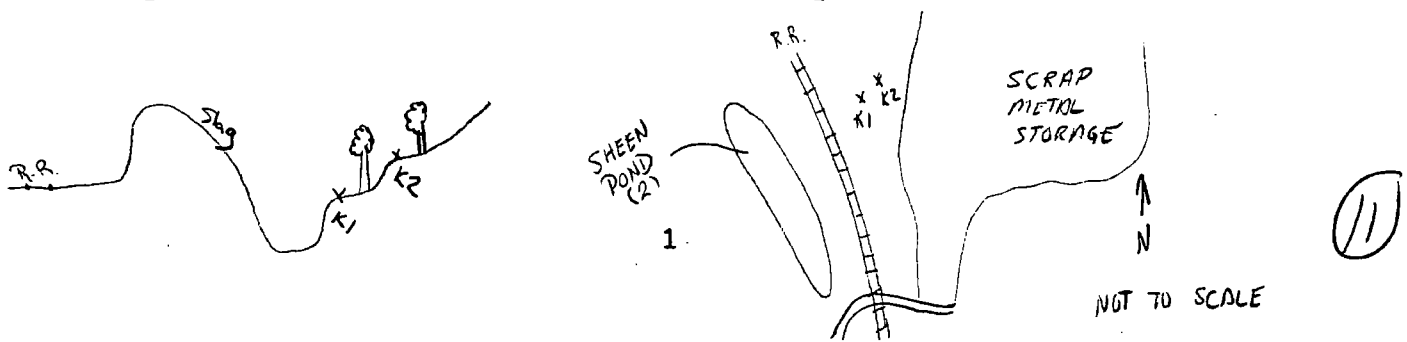
DAY 2

Wednesday, Dec 9th. The morning was overcast, cold and windy. By the afternoon the clouds began to break and the day became partly sunny, although still windy and cold. Temperatures were in the 30's.

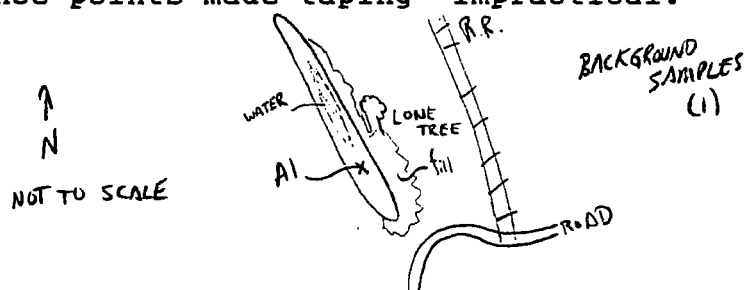
All the soil sediment samples, except the "pond", were collected on day 1. All the liquid samples were collected on day 2. Refer to the RFA sampling plan for sample location and descriptions.

1) Background Samples

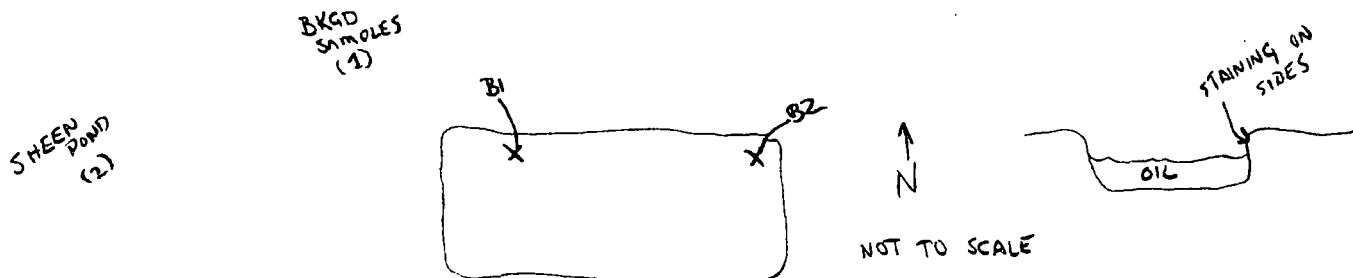
Upon examination of the aerial photos a wooded area east of the sheen pond was chosen for the background samples. The west edge of this wooded area was artificially built up with slag and large furnace slag blocks. However, as you trend north and east the area looked relatively undisturbed. The area is ravine-like. We avoided the bottom and collected two samples(K1,K2), one each on tiers going up the east side. Except for trees, which we could not reference exactly, there were no reference points from which to tape the exact locations of these samples.



2) "SHEEN POND" - identified on the aerial photos as pond with a sheen. This area was very muddy due to the rains of the past several days. However, the pond did not collect/retain much water. No sheen was apparent on the water or sediment. Much more debris and fill material was piled around the pond as opposed to the VSI. Dale B. said the fill material was a result of railroad track work. I got the impression from Dale B. that this depression(pond) is to be filled. The sample (A1) came from the center of the pond about 1/3 north from the south end. An exact location was not determined. The lack of any good reference points made taping impractical.



3) "OIL POND" - identified as a sludge pond on the aerial photos. Upon examination, the pond looked to be filled with an "oil" about the consistency of used motor oil. A sediment sample (B1) was collected from the north side towards the northwest corner. A ladle attached to a pole was used to collect the sample. The bottom sediment had the consistency of sludge. No reading was registered on the Hnu, although an odor could be detected. A liquid sample (B2) was also collected, taken from the Northeast corner. This sample confirmed my suspicions; that the pond is filled nearly entirely with oil, and is not simply an oil film. I observed oily water running across a road from a scrap metal storage area to the pond. While this may help explain some of the oil in the pond, I don't think it can account for the quantity and consistency of the oil in the pond. I advised Dale B. to try to find out the source of the oil in the pond, as this pond could be called impoundment.



4) Vertical tanks - Much more liquid was present in the tank bermed area than during the VSI. The recent rains do not seem able to explain this entirely as the liquid appeared more oily also. Heavy staining was also very apparent. Two samples were

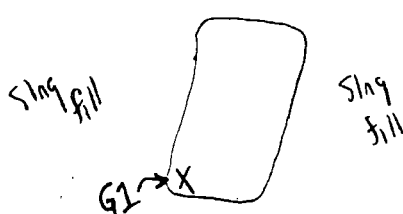


taken (I1,I2), one from each area, each near the liquid soil border. Sample I2 was taken between 2-5" depth.



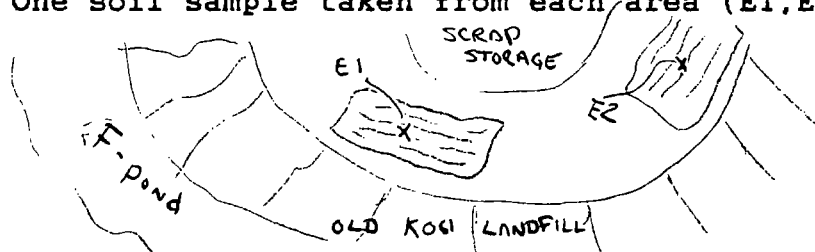
← N  
NOT TO SCALE

5) East sludge pond - pond identified on aerial photos as a sludge pond. Square pond in slag fill area. Sample taken from SW corner of pond (G1). Objective to sample white sediment. Oil "spots" rose to the surface during the sampling. Disturbing the bottom sediments apparently released "oil trapped" in the sediments.



↑ N  
NOT TO SCALE

6) "LAND TREATMENT" - Area atop old K061 landfill. Two areas were "freshly" disked, and land treatment machinery was also present. Areas disked seemed larger than observed during the VSI. One soil sample taken from each area (E1,E2).



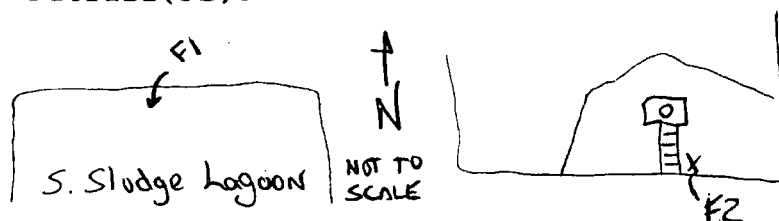
7) F-POND - Pond to the south and west of the old K061 landfill. An obvious white leachate/precipitate was present in at least three locations in the pond. A sediment sample was collected from one location (D1) and water samples were collected near the other two (D2,D3). Dale B. said he believes the white sediment is a lime leachate originating from the old landfill. He also stated that other materials, besides K061, were also placed in the landfill. I was not aware of this and I am not sure if anyone else is either.



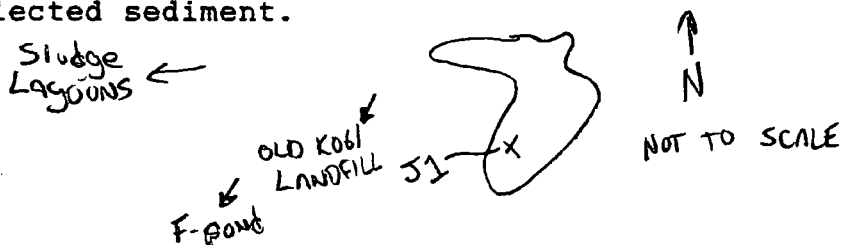
↑ N  
NOT TO SCALE  
L = Leachate

8) Sludge Lagoons - Took a surface sediment sample from the south

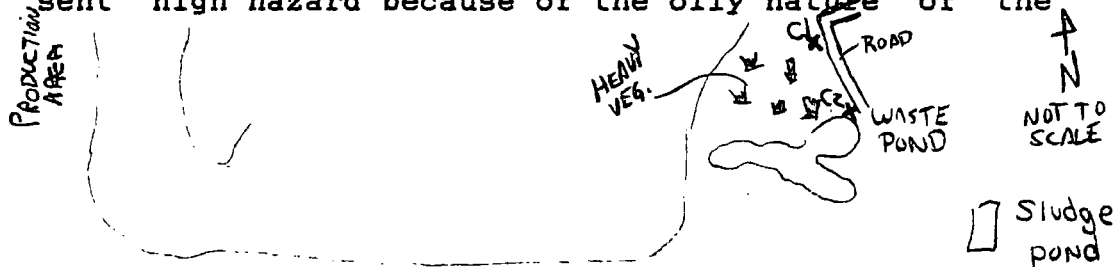
lagoon(F1), and a water sample from the North(active) lagoon near the outfall(F2).



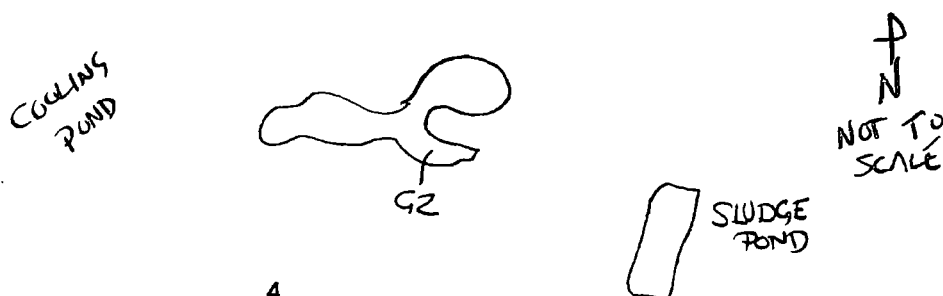
9) Pond - This pond is east of the Old K061 landfill and north near the canal. The pond exhibited an uncharacteristic lime green bottom sediment color. A surface sediment sample (J1) was taken near the southwest corner. Traces of oil were present in the collected sediment.



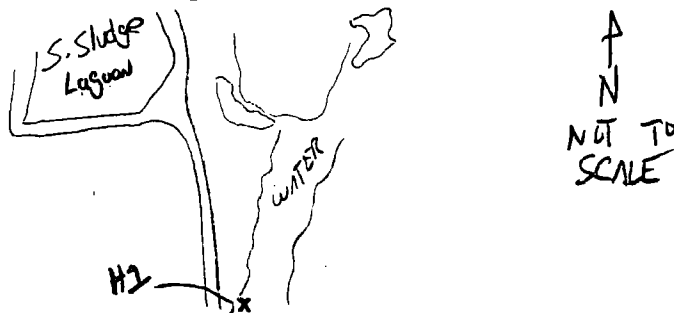
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11) Waste Pond - Pond just east of the cooling pond and west of the sludge pond. A water sample was collected from this location (G2), from the southeast corner. A white sediment is present in this pond. The objective was to sample the water to see if the water is contributing to, or the source of, the white precipitate.



12) "MUD LAKE" - Prior to the construction of the WWTP Keystone channeled their K062 waste to the Illinois River via this "mud lake" region. Unfortunately, nobody is quite sure, or willing to admit to, the location of this area. All I know is that the area is south of the location of the present day sludge lagoons. A water sample (H1) was taken from this area, about 2000' down an sandy road leading south from the east edge of the south lagoon. During the VSI I saw an oil film on the water in this area. However, there was none apparent during the sampling visit. This area is/was used quite extensively for duck hunting, including the use of several boats, and was active during the VSI. It is possible that the oil film originated from this boat traffic. The hunting season is supposedly over and the oil film is no longer visible, so it may have been of motorboat origin.



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Statement of Work

Introduction/Background

The FY '88 RCRA Implementation Plan (RIP) requires that RCRA Facility Assessments (RFAs) be completed during FY '88 for all land disposal facilities seeking a permit, and for 30% of the closing land disposal facilities. The Region V targets for RFAs in FY '88 are tied directly to our quarterly commitments for the Strategic Planning and Management System (SPMS). Completion of these activities are the highest priority for the Solid Waste Branch, and adherence to the established schedules is imperative.

Corrective Action Needs

A Preliminary Review (PR) and Visual Site Inspection (VSI) were performed during FY '87 for Keystone Steel & Wire Company. The information reviewed indicated that there is a potential for releases. The Region has determined that a sampling visit should be performed to document a release if it exists.

Work to be Performed

- 1) Contractor will take samples as specified in the attached sampling plan.
- 2) Contractor shall provide the sample packaging & forwarding to the Laboratory assigned by Region V CLP program management according to the chain of custody procedures.
- 3) The contractor will then prepare a written sampling report for Region V upon completion of work. This report must include a complete description of sampling processes used, special preparations, if any, unusual circumstances encountered, and chain-of-custody procedures.
- 4) Contractor shall tabulate analytical data, received from CLP laboratories through U.S. EPA Region V technical contact, evaluate them and make recommendations for future actions.

This project is expected to be completed according to the schedule negotiated between the contractor and EPA.



Deliverables and Due Date

Sampling report should be submitted to U.S. EPA within 15 work days of work completion. It should contain the description of sampling trip, where the samples were taken from, how did it go, providing a list of all the samples taken and any problems encountered during sampling.

Review analytical data reports and make recommendations for future actions within 30 days of receiving the laboratory reports.

Travel Requirements

The contractor will take the samples, specified in sampling plan, at Keystone Steel & Wire Company in Peoria, IL. The sampling team travel expenses shall be itemized and included in the work plan.

Sampling Project Cost Estimate

<u>Item</u>	<u>Person-Hour</u>	<u>Cost (\$)</u>
Work plan development	8	400
Sampling plan review	8	400
Sampling trip (3 persons/2 days)	60	3000
Data Evaluation	27	1350
Report preparation	8	400
Administrative Expenses	9	450
Other direct costs	30	1500
	<u>150</u>	<u>7500</u>

Note: Technical monitor and Contractor will negotiate sampling plan to ensure that person-hours expended will not exceed our estimate.

## RFA Sampling Plan

Keystone Steel & Wire Company  
ILD 000714881

7000 S.W. Adams Street  
Peoria, IL 61641  
(309) 697-7020

### I. General Facility Information

Keystone Steel & Wire/Bartonville Plant is a manufacturer of iron and steel including semifinished and finished wire products. Keystone is located in Peoria, IL on approximately 1410 acres and has been in operation since around the turn of the century. The company produces 4 acknowledged hazardous waste streams, which include: electric arc furnace dust (K061), spent pickle liquor (K062), 1-1-1-trichloroethane still bottoms (F002), and solidified paint waste (D001). Keystone presently claims no regulated SWMUs. The facility can be divided into two main components, the main plant/production areas, and a large wetlands/grasslands region to the east and south of the plant. The majority of the sampling will take place in the wetlands/grasslands region and areas bordering the production facilities.

### II. Sampling Objectives

Questions still exist concerning Keystone's past disposal of K061, K062, and F002 wastes. There is also justification for concern over unacknowledged present and past disposal activities, from Keystone and leased properties on the Keystone site. Supplemental information suggests that volatile and semi-volatile compounds, metals, and possibly PCBs, may have been released to the environment (see attachment 1). Furthermore, considering the age and size of the facility, a RCRA enforcement action against Keystone, and generally poor housekeeping, a sampling visit is needed to characterize the site and see whether or not there have been releases of hazardous constituents which would pose a threat to human health and the environment.

### III. Units to be sampled (see attached maps)

#### A) "Sheen pond"

1. Description - Natural depression identified on aerial photos as a pond with a sheen. During VSI no liquid was present. Area is surrounded by large amounts of construction/demolition debris.
2. Waste Managed - Unknown
3. Samples - 1 soil, 6-12" depth
4. Potential Sampling Problems - loose debris on the sides of the pond, however the sides are not very steep.

B. "Oil Pond"

1. Description - approximately 40' x 120' stone debris depression containing a dark oily liquid.
2. Waste managed - Unknown, property leased to Scrap Products.
3. Samples - 1 sample at top of "liquid/sludge"  
1 sample at bottom of "liquid/sludge"
4. Potential sampling problems - Depth to bottom of pond unknown, would not expect it to be greater than 4'. Sides of the pond are steep with "oil" about 3' below surface grade. Unsure of bottom characteristics, it could be sediment and/or rock debris.

C. Cooling Pond

1. Description - A large wetland area used to provide cooling water for production.
2. Waste managed - Unknown
3. Samples - 2, surface water
4. Potential sampling problems - Depending on exact sampling location, steep sided banks may be encountered. Potential surface contamination observed during VSI. Location of "contaminant" appeared, at least partially, to be controlled by prevailing winds, thus the uncertainty as to exact sampling location.

D. F pond

1. Description - Small irregularly shaped depression, identified with sheen by aerial photo. Located near old K061 landfill and sludge ponds.
2. Waste managed - Unknown; Keystone representative identified white precipitate as possible lime leachate.
3. Samples - 1 sediment and 2 surface water.
4. Potential Sampling Problems - Access road to area is steep and poorly maintained, but is passable.

E. Land Treatment



1. Area atop old K061 landfill with topsoil disked and "treatment" machinery present. Keystone personnel attributes this activity to machinery cleaning and grounds maintenance.
2. Waste managed - Unknown
3. Samples - 2 soil samples, 6-12" depth.
4. Potential sampling problems - same as for F-pond.

F. North Sludge Pond

1. North sludge pond, active part of waste water treatment facility. K063 sludge dewatering area. Due to present enforcement action, concerning the waste water treatment operation, sampling is warranted here.
2. Waste managed - K062(?), K063 (delisted sludge). Potential may exist for other contaminants (see attachment 1).
3. Samples - 1 water/sludge  
                  1 sediment
4. Potential sampling problems - Access to ponds must be provided by Keystone personnel

G. East sludge/waste ponds

1. Description - Small shallow depressions in slag fill area.
2. Waste managed - Unknown
3. Samples - 1 Sediment  
                  1 Surface water
4. Potential sampling problems - none apparent

H. "Mud Lake"

1. Description - Open field/wetland, apparent site of old K062 disposal area.
2. Waste managed - K062?
3. Samples - 1 water sample
4. Potential sampling problems - same as for F-pond

I. Vertical Tanks

1. Description - Bermed vertical holding tank area, with standing liquid and heavy staining.

2. Waste managed - Production Boiler Oil
3. Samples - 2 soil samples, 6-12" depth
4. Potential sampling problems - none apparent

J. Pond

1. Description - Small depression east of sludge lagoons and old K061 landfill. Uncharacteristic green bottom sediment.
2. Waste managed - Unknown
3. Samples - 1 Sediment
4. Potential sampling problems - same as for F pond

K. Background samples

1. Description - 2 background locations will be determined on site.
2. Waste managed - N.A.
3. Samples - 2 soil samples, 6-12" depth.
4. Potential sampling problems - N.A.

IV. Analytical Requirements

The objective for the analyses is to determine the presence or absence of contamination from activities that occurred at the site.

Parameters to be analyzed for are:

Regular Analytical Services (RAS) inorganics; metals only. RAS organics; volatiles, semi-volatiles, and PCBs.

V. Sampling

Use containers from the sample bottle repository program.

- A. For soil samples, use augers to take samples to 15-18" depth, power drills to get down to eight feet depth. The samples are to be collected into 250-500 ml glass jars, equipped with Teflon lined screw caps. Tape the lid carefully, mark these and put on the initials of the collector. No refrigeration is needed. Pack the samples carefully with chain-of-custody papers (forms). Always prepare equipment blanks when equipment is reused; use appropriate aliquots for each parameter.

B. Sludge Sampling

Use hand covers for obtaining samples, other procedures as above. Samples for metal analysis should be preserved by refrigeration and chemical additives. First filter it on a coarse filter, then split the aqueous sample; filter one part of it on a 0.45 micron filter, transfer into container, add Nitric acid to pH<2. Preserve the other part.

C. Water Sampling

Use glass sample containers with a volume of a minimum 500 ml. Preserve samples for metal analysis as above.

VI. Prepare Sampling jars as follows:

A. For metals, clean with:

Nonphosphate detergent in tap water;  
1:1 Nitric acid rinse;  
1:1 HCl rinse;  
Tap water rinse; and  
Distilled, deionized water rinse.

B. For organic analysis, remove deposits with:

Chromic acid;  
Rinse with tap water;  
Wash with nonphosphate detergent in hot water;  
Tap water rinse;  
Distilled water rinse;  
Acetone rinse; and  
Pesticide-grade Hexane rinse.

VII. Sample documentation

Sampling procedures must be logged into a log book, including all sampling processes, special preparation, holding times, and chain-of-custody procedures.

VIII. Laboratory reports should include:

Objective of testing;  
Test method used for each parameter;  
Calibration procedures/Frequency;  
Calibration Standards/Sources;  
Data development;



**ATTACHMENT 1**

**Compounds that Could Possibly Have Been in  
Plant Discharge Waters**

<b>Inorganics</b>	<b>Volatile Organics</b>	<b>Semivolatile Organics (base-neutral)</b>
<b>Lead</b>	<b>Methyl ethyl ketone</b>	<b>Naphthalene</b>
<b>Chromium</b>	<b>(2-Butanone)</b>	<b>Propargyl alcohol</b>
<b>Nickel</b>	<b>Toluene</b>	<b>Fluorene</b>
<b>Cadmium</b>	<b>1-1-1 Trichloroethane</b>	
<b>Barium</b>	<b>Benzene</b>	
<b>(barium sulphonate)</b>	<b>Trichloroethylene</b>	
	<b>Vinyl chloride</b>	
	<b>Methylene chloride</b>	

Information supplied by Keystone per RCRA Enforcement action.

Taken from: **SEDIMENT SAMPLING AND ANALYSIS, April 20, 1987**  
**Revised 6/11/87 (Contractors Report)**

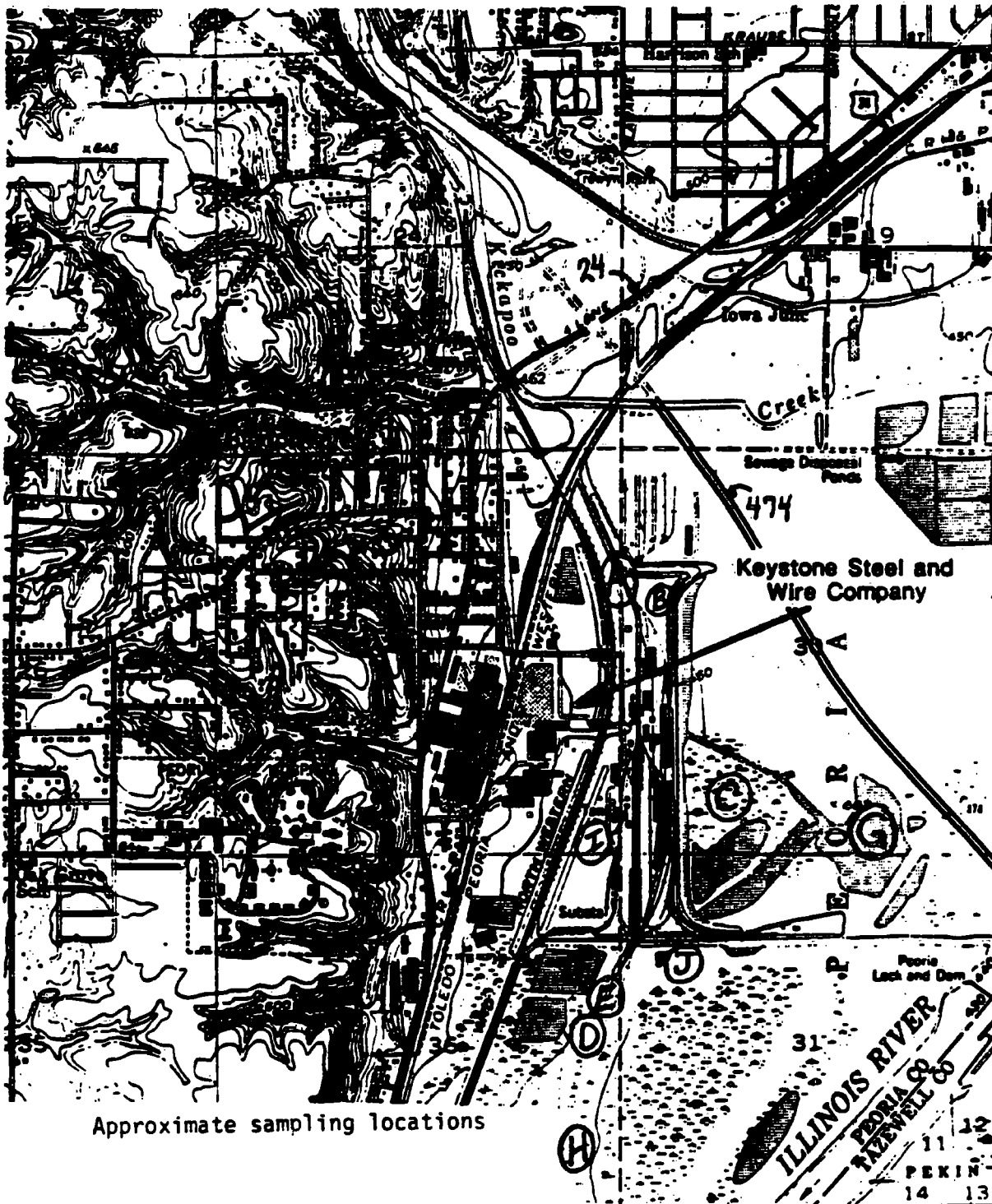


FIGURE 1. KEYSTONE LOCATION MAP

Taken from: SEDIMENT SAMPLING AND ANALYSIS, April 20, 1987  
 Revised 6/11/87 (Contractors Report)

BARTONVILLE

PROPERTY LINE



FUTURE LAND-FILL  
(INTERIM STATUS)

KEYSTONE GROUP  
BARTONVILLE PLANT

US RTE 24

FUTURE (INTERIM STATUS)  
LANDFILL (800'x1000')

AERATION  
BASIN

NEUTRALIZATION  
BUILDING  
SEDIMENTATION  
BASINS (2)

SLUDGE  
LAGOON

600'x800'

600'x600'

Approximate sampling locations

EXISTING POINT SOURCE  
DISCHARGES-NPDES PERMIT  
IL0002526

ILLINOIS

SCALE: 1" = 1/4 MILE

EXISTING

FUTURE (INT. STATUS)

SAMPLING LOCATIONS

BARTONVILLE

U.S. ROUTE 24

CHICAGO AND NORTHWESTERN RAILROAD

TOLEDO PEORIA AND WESTERN RAILROAD

Kickapoo Creek

INTERSTATE 474

SCRAP  
METAL  
STORAGE

SHEEN ON  
WATER

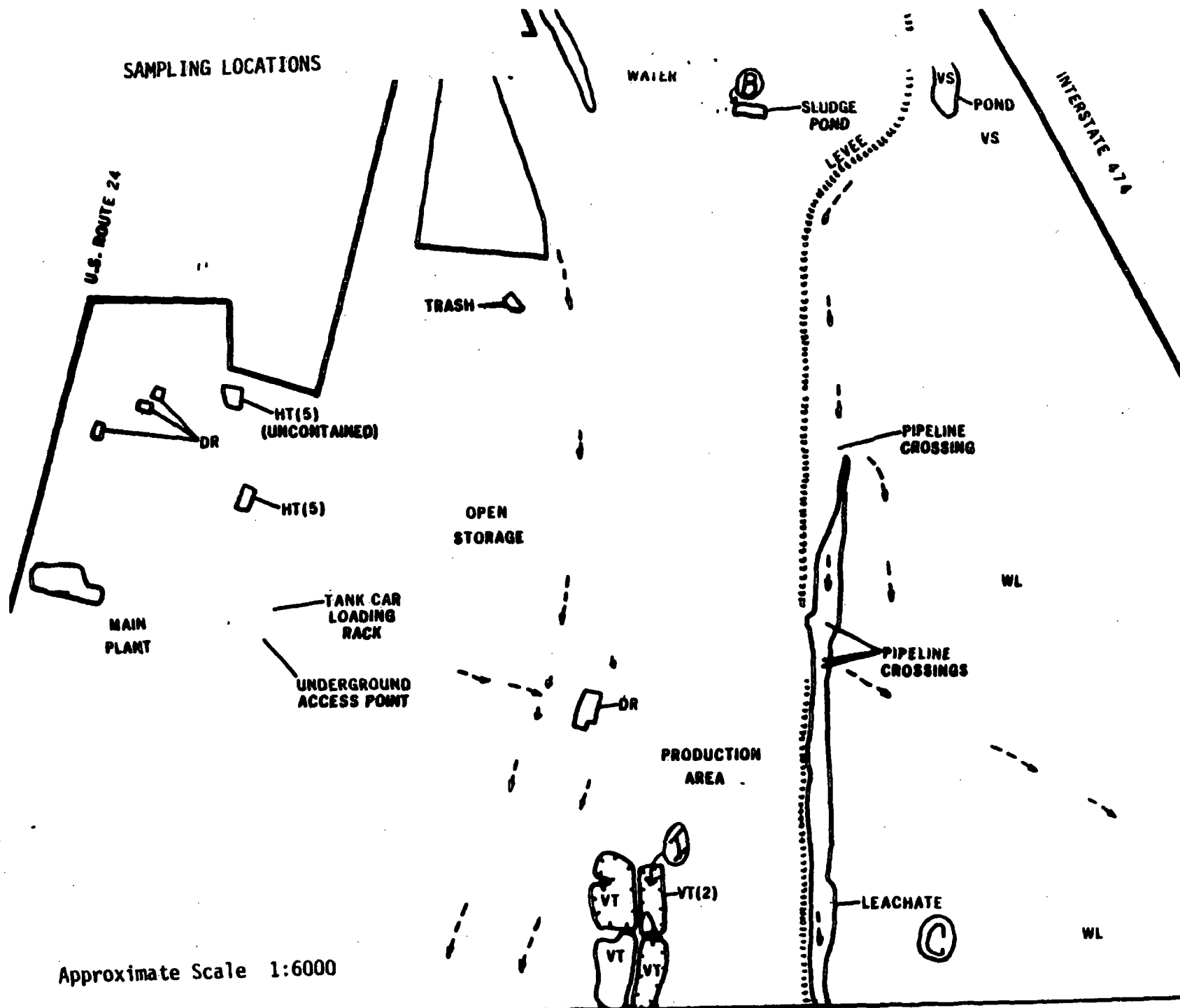
(A)

SEE FIGURE 4

Approximate Scale 1:6000

Figure 3



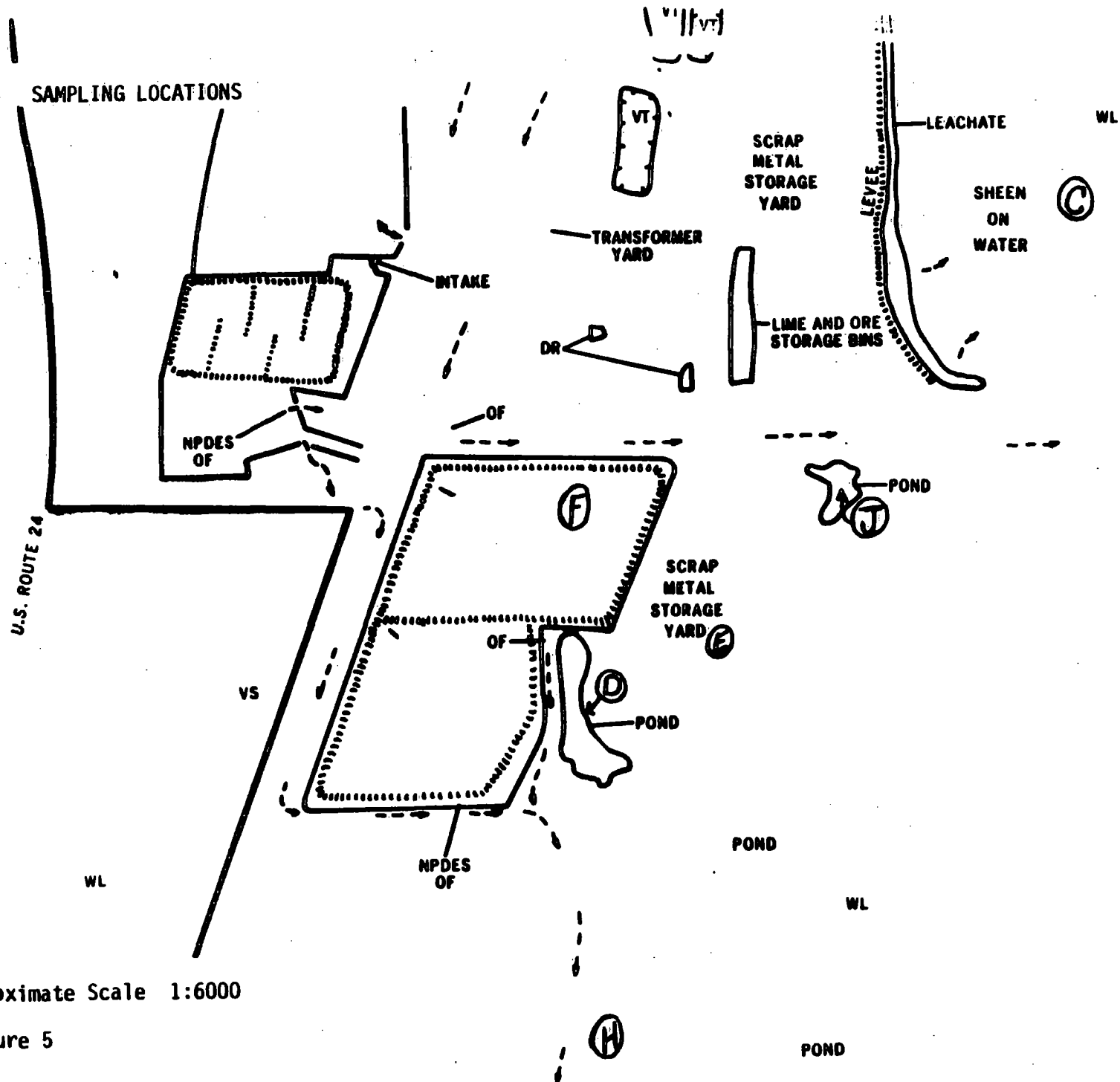


Approximate Scale 1:6000

Figure 4

SEE FIGURE 5





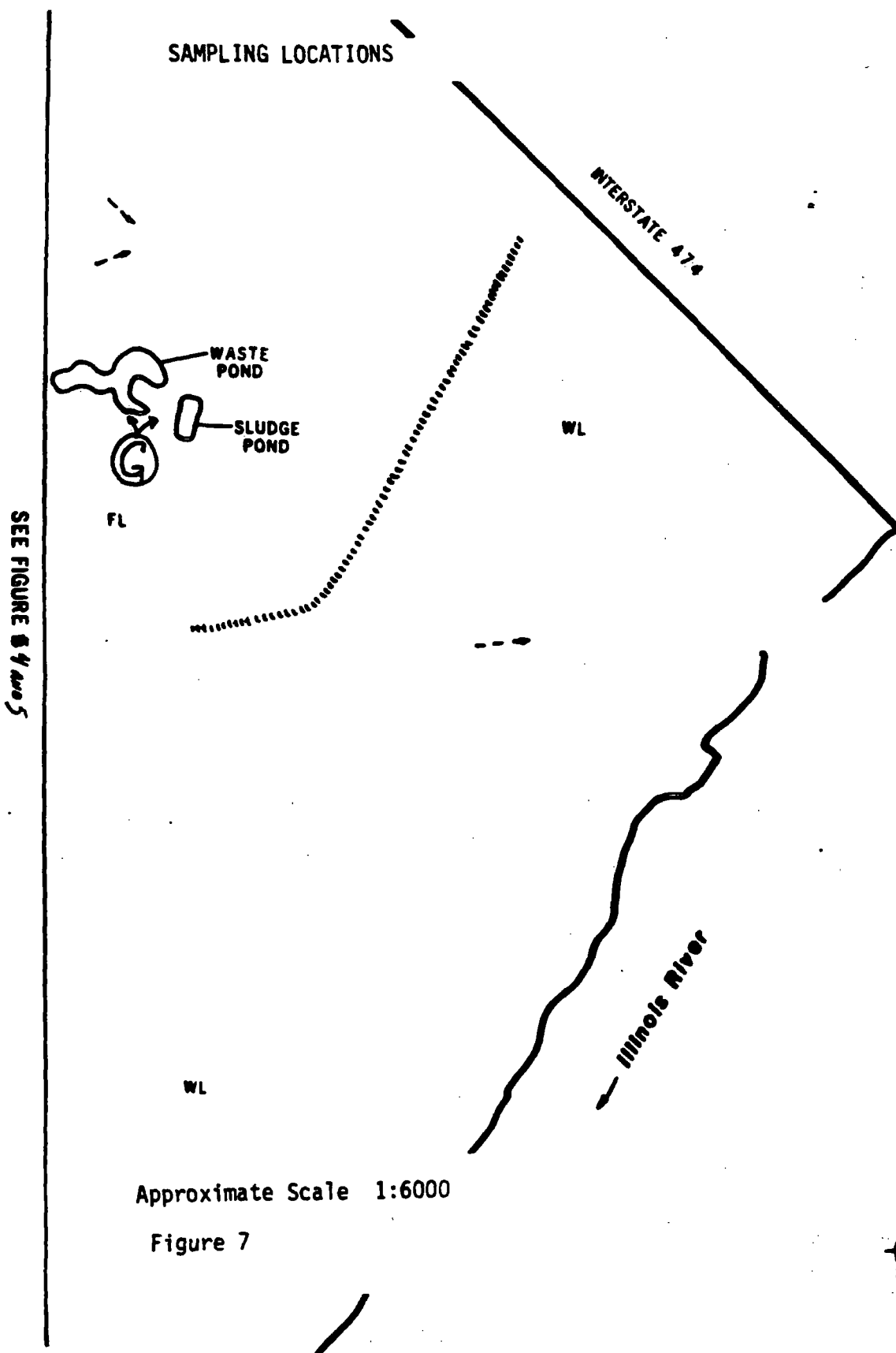
Approximate Scale 1:6000

Figure 5

SEE FIGURE 6







Approximate Scale 1:6000

Figure 7

